United States Patent and Trademark Office

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/753,329	12/29/2000	William D. Rupp	3660P021X3	8414

7590   03/19/2007

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EXAMINER
PATEL, JAGDISH

ART UNIT	PAPER NUMBER
3693	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
Office Action Summary	09/753,329	RUPP ET AL.
	Examiner	Art Unit	
	JAGDISH PATEL	3693	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *06 September 2006*.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1,5-8 and 10-18* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1,5,6 and 10-18* is/are rejected.

7) ☒ Claim(s) *7 and 8* is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   This communication is in response to amendment filed   9/6/2006.

Response to Amendment

2.   Claims 1 and 17 have been amended.

Claim Rejections - 35 USC § 101

3.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or
> any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and
> requirements of this title.

Claims 1,5-6 and 10-18 are rejected under 35 U.S.C. 101 because the claimed invention

is directed to non-statutory subject matter.

The claim recite non-statutory process (the claims recite mathematical algorithm without

practical application i.e. the claims are not directed to "useful, concrete and tangible result")

        The instant claims recite mathematical algorithm which solve a problem of
calculating a total bid value by performing a function including a predetermined formula on the
bid variables associated with bidding for a lot of goods having a plurality of line items and each
line item associated with a bid variable, calculating a total bid value by performing a function on
the bid variables using initial values for each bid variable from the bidders wherein each line
item is associated with a weight factor determined by an enterprise buyer receiving the bids,
when combined with a bid variable associated with a respective line item, contributes in the total
bid value of the lot of goods, and wherein the total bid value is used to bid on behalf of the
respective enterprise supplier bidder for the lot of goods as a whole and the total bid value is
further used by respective enterprise supplier bidder to determine the bidding position by
comparing total bid values of a remainder of the plurality of enterprise supplier bidders.

        A mathematical algorithm is defined as a "procedure for solving a given type of

mathematical problem." Gottschalk v. Benson, 409 U.S. 63, 65, 175 USPQ 673, 674 (1972);

Flook, 437 U.S. at 585 n.1. 198 USPQ at 195 n.1: Diehr, 450 U.S. at 186, 209 USPQ at 8.

Mathematical algorithms are non- statutory because they have been determined not to fall within the § 101 statutory class of a "process." Benson. "[A]n algorithm, or mathematical formula, is like a law of nature, which cannot be the subject of a patent." Diehr, 450 U.S. at 186, 209 USPQ at 8. The exception applies only to mathematical algorithms since any process is an " algorithm" in the sense that it is a step-by-step procedure to arrive at a given result. In re Walter, 618 F.2d 758, 764 n.4, 205 USPQ 397, 405 n.4, (CCPA 1980); Pardo, 684 F.2d at 915, 214 USPQ at 676.

      A mathematical algorithm is not made statutory by "attempting to limit the use of the formula to a particular technological environment." Diehr, 450 U.S. at 191, 209 USPQ at 10. Thus, "field of use" or "end use" limitations in the claim preamble are insufficient to constitute a statutory process. This is consistent with the usual treatment of preambles as merely setting forth the environment. See Flook (the preamble while limiting the application of the claimed method to "a process comprising the catalytic chemical conversion of hydrocarbons" did not serve to render the method statutory); Walter, 618 F.2d at 769, 205 USPQ at 409 ("Although the claim preambles relate the claimed invention to the art of seismic prospecting, the claims themselves are not drawn to methods of or apparatus for seismic prospecting"); de Castelet, 562 F.2d at 1244 n.6. 195 USPQ at 446 n.6 ("The potential for misconstruction of preamble language requires that compelling reason exist before that language may be given weight"). Compare Waldbaum, 559 F.2d at 616 n.6. 194 USPQ 469 n.6 (portion of preambles referred to in method portion of claims "are necessary for completeness of the claims and are proper limitations thereto").

Data-gathering steps

If the only limitations in the claims in addition to the mathematical algorithm are data-gathering steps which "merely determine values for the variables used in the mathematical formulae used in making the calculations." Such antecedent steps are insufficient to change a nonstatutory method of calculation into a statutory process. See In re Richman, 563 F.2d at 1030. 195 USPQ at 343; Sarkar. 588 F.2d at 1335. 200 USPQ at 139 ("If the steps of gathering and substituting values were alone sufficient, every mathematical equation, formula, or algorithm having any practical use would be per se subject to patenting as a 'process' under §101"): Gelnovatch, 595 F.2d at 41 n.7. 201 USPQ at 145 n.7 ("claimed step of perturbing the values of a set of process inputs (step 3), in addition to being a mathematical operation, appears to be a data-gathering step"). Where the claim "presents data gathering steps not dictated by the algorithm but by other limitations which require certain antecedent steps" the claim may present statutory subject matter. Abele, 684 F.2d at 908, 214 USPQ at 687.

The claimed inventions recite data gathering steps (receiving initial values for each bid variable) and applying this data in computing the maximaizable cost and generating a cumulative cost. When viewed in light of the specification, these steps constitute data gathering (inputs from user relevant to the budget related parameters) and a mathematical algorithm applied to the data input by a user (classifying, computing and generating process). As per the court rulings cited above, the claims constitute mathematical algorithm(s) applied to data gathered in the respective process steps. The fact that the mathematical algorithm is applied to solve a problem of automatically calculating an adjusted value for the total bid value (see claim 1) . Walter, 618 F.2d at 764-65 n.4, 205 USPQ at 405 n.4. "The type of mathematical computation involved does

not determine whether a procedure is statutory or nonstatutory." In re Gelnovatch, 595 F.2d 32,

41.201 USPQ 136, 145 (CCPA 1979). A "claim for an improved method of calculation, even

when tied to a specific end use, is unpatentable subject matter under §101." Flook, 437 U.S. at

595 n.18, 198 USPQ at 199 n.18. Mathematical algorithms may represent scientific principles,

laws of nature, or ideas or mental processes for solving complex problems. See Meyer, 688 F.2d

at 794-95, 215 USPQ at 197.

The apparatus claims (claims 17-18) are analyzed based upon the underlying process.

In the instant case these claims recite process of the respective method claims. See the following

explanation.

Labels are not determinative § 101 inquiries. "Benson applies equally whether an

invention is claimed as an apparatus or process, because the form of the claim is often an

exercise in drafting." In re Johnson, 589 F.2d 1070, 1077, 200 USPQ 199, 206 ([CCPA] 1978).

"Though a claim expressed in 'means for (functional) terms [under 35 U.S.C. § 112, sixth

paragraph] is said to be an apparatus claim, the subject matter as a whole of that claim may be

indistinguishable from that of a method claim drawn to the steps performed by the 'means,'" In re

Freeman, 573 F.2d at 1247, 197 USPQ at 472. Moreover, that the claimed computing system

may be a "machine" within "the ordinary sense of the word," as appellant argues, is irrelevant.

The holding in Benson "forecloses a purely literal reading of § 101."

The claims, therefore recites mathematical algorithm without a practical application of

the result of the algorithm that produce an useful concrete and tangible result.

To resolve the aforementioned 101 rejection, the examiner suggests that the claim be

amended to recite one or more limitations which are directed to practical application of the final

result of the algorithm, for example, generating and distributing a summarized bid of each

enterprise bidder to the enterprise buyer (see claims 7 and 8). Please provide support in the

disclosure for any amendment consistent with 35 USC 101 requirement outlined herein.

Allowable Subject Matter

Claims 1,5-6 and 10-18 are allowed subject to amendment to resolve the 35 USC 101

rejection. Claims 7 and 8 are allowed id written in independent form.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to JAGDISH PATEL whose telephone number is (571) 272-6748.

The examiner can normally be reached on 800AM-630PM Mon-Tue and Thu.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, **KRAMER JAMES A** can be reached on **(571)272-6783**. The fax phone number

for the organization where this application or proceeding is assigned is 517-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jagdish N. Patel

(Primary Examiner, AU 3693)

3/13/07